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ABSTRACT

Outcomes of the State Department of Education project at Petersburg City and Radford City, Virginia were the development and implementation of an elementary school and eighth grade level career awareness program (including primary and intermediate special education), improved guidance and counseling service at the elementary level, and the establishment of a placement service insuring the placement of all existing students. In setting up the program, a complete search of existing programs was conducted through ERIC, more than 100 existing projects were contacted, consultants were utilized, and visitation was made to some of the projects. Teacher preparation and involvement was an essential component of the program. Outstanding features included emphasis on individualized instruction, an interdisciplinary and multimedia approach, and unification of subjects around a career theme. Evaluation was through internal assessment, testing, and outside evaluation. More occupational and academic achievement information testing, additional "handson" motivational activities, and program expansion to the upper grades were future recommendations. More than half of the report is devoted to comprehensive appendixes covering staff duties, instruction units, progress time schedule, tests and scales, and teacher responses. (EA)

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FINAL REPORT

Project No. V261056L
Grant No. OEG-0-72-0819

Research and Development Project
in Career Education

Conducted Under
Part C of Public Law 90-576

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State Department of Education
Division of Vocational Education
Richmond, VA 23216

July 15, 1973

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Research and Development Project in Career Education

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Period Covered: January 1, 1972 to July 1, 1973

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SUMMARY OF REPORT

TIME PERIOD COVERED BY REPORT

January 3, 1972 to July 1, 1973

GOALS AND OBJECTIVES

1. To develop and implement a program at the elementary school level and the eighth grade level designed to increase the career awareness of students in term of the broad range of options open to them in the world of work through orientation and exploration.

2. To improve guidance and counseling service at the elementary level.

3. To establish a placement service in Petersburg to insure the placement of all exiting students in either a job, a post secondary occupational program, or in an advanced educational program.

4. To aid in developing a career education continuum.

PROCEDURES FOLLOWED

1. Under the direction of the State Director of Vocational Education and the Coordinator of Vocational Education Research and Statistical Information, the activities of the Radford City and Petersburg City site were administered.

2. Career Awareness Coordinators were appointed at both locations to give direction and supervision to the implementing of selected features of the Career Education program including in-service education for teachers to be involved in the program.

3. A complete search of existing programs was conducted through the ERIC system and through writing to more than 100 existing projects. Visitations were made to some of the programs that had implications for this project. Consultants from on-going programs were utilized to help develop the initial steps in organizing the project.

4. State supervision was provided by the Divisions and Service, Vocational Education, Secondary Education, Elementary Education, Guidance and Testing.

5. The instructional unit approach was adopted to be used in conjunction with and infused into the existing curriculum. These broad instructional career education units were developed to give each teacher guidelines for adapting all subject content around a career education theme.

6. Workshops and teacher preparation programs were organized to develop materials and plan the basic program. Teacher preparation and involvement was an essential component of the program.

7. The use of various activities was emphasized in order to enrich the curriculum. Teachers used role playing, simulations, interviews, field trips, resource people, parent involvement, hands-on and other sensory type experiences to add variety to the school environment.

8. In Radford City, a material center was developed to furnish teachers and students with supplementary materials needed to help each individual child.

9. Several program components were developed in depth:

Career Development - Grades 1-6.

The program at this level was developed for the integration of activity centered experiences into the existing curriculum. These activities focused on positive self concepts, appreciation of all vocations, understanding workers, positive attitudes toward the value of work and the fact that all work has dignity. Occupational decisions were not the goal at this level.

Career Development - Grades 7-8.

This part of the program also provided for broad based occupational exploration including classroom activities, simulated work experiences, and field experiences in a variety of occupational areas. At this level, students were encouraged to think of their own careers and to consider a realistic plan to reaching their own careers. The activities provided for further development of self concept, self appraisal of abilities, interests and aptitudes, understanding of educational avenues, appreciation of economic and social value of work, and an awareness of the decision-making process.

Career Guidance and Counseling

The services and activities in this area were greatly expanded to include assistance to teachers in individual and group guidance activities. Counselors served as resource personnel in providing occupational information.

Placement

The problems of placement were explored at the two sites, and at Petersburg a placement service was planned and established to assist all school leavers--whether by graduation or dropping out. The procedure for maintaining contacts with employers was coordinated with the cooperative education contents.

10. Outstanding features of the program include:

    a. An emphasis on individualized instruction

    b. Interdisciplinary approach

    c. Multi-media approach

    d. Unification of subjects around a career theme

RESULTS AND ACCOMPLISHMENTS

1. Approximately 150 career education instructional units have been developed through the project.

2. Positive attitudes regarding career education have been developed by school administrators, counselors, teachers, and parents. Increased support has been noted from area businesses and industrial organizations.

3. Informal surveys have shown the following: (a) the career education programs had positive response from students as well as parents, (b) staff and faculty have demonstrated an increasingly receptive attitude toward career education, (c) the placement service has been accepted well in the business community.

4. New techniques of teaching have been introduced and utilized through this project such as: team teaching, individualized instruction, audiovisual innovations, learning laboratories and centers, and individual and group guidance.

5. Teachers who have worked with the project are enthusiastic about it and will continue after federal funding ends.

6. Supplementary materials have been furnished that teachers would not have been exposed to otherwise.

EVALUATION

1. Evaluation efforts were focused in two directions: first, internal product assessment, second, a summative program evaluation conducted by a third-party evaluation team.

2. At the Petersburg site the internal product assessment was made by both the participants and the instructional staff. Results were positive in the affective domain and now--significant in the cognitive domain. The Metropolitan Achievement Tests we administered to the project participants and corresponding control groups. There were no significant differences in academic progress shown in the test results. Evaluation by third-party evaluators indicated that major objectives had been met.

3. The evaluation at the Radford site was primarily an information based evaluation with statistical documentation in the following areas: teacher attitude, student career awareness, and student achievement.

CONCLUSION AND RECOMMENDATIONS

1. It appears that the project goals have been met.

2. Teachers participating in the project have grown professionally and have seen the career education approach to be a valuable method of presenting instruction. The additional planning and preparation were compensated by job satisfaction.

3. Parents have become interested in the program and have expressed a desire to assist with program activities.

4. An expansion of the program in the middle and upper school is needed.

5. More occupational information testing as well as testing for academic achievement is needed.

6. Additional "hands-on" activities are needed as motivational techniques.

BODY OF THE REPORT

The career awareness project in Virginia was carried on at two project sites, Petersburg City and Radford City. The programs were carried on under the direction of the State Department of Education and at each site direction was given by a Career Awareness Coordinator.

The body of this report will address itself individually to the activities at each project site. While the coordinators did confer at times, the work was done independently in each school division.

PROBLEM AREA

Radford City

The Radford City School System serves a small city with only three elementary schools (K-7) and one junior-senior high school (8-12). Educators in recent years have realized that many existing instructional programs have not been as realistic or effective in the preparation of students for the world of work as they should have been in that the programs were more subject oriented than student oriented. Although the Radford Schools had begun to individualize instruction prior to the career education project, the project very definitely enhanced the continuation of this transition.

Although career education has often been misinterpreted as a vocational program or a guidance program, this system took a much broader point of view of the concept of career education. Career education has become a total educational program that is an integral part of every experience of every child in the educational community and hopefully, outside the educational community. It is a broad concept that encompasses every discipline and every activity of the child's educational experience. Vocational education, guidance, and every other subject discipline are essential components of the concept and they are all necessary to have a successful education for each individual child.

In order for the concept of career education to become a reality, educators must communicate and cooperate in developing a program that will serve the needs of one-hundred per cent of our students. Implementation of career education has served as a vital instrument in placing the total instructional program in its proper perspective and organizing educators to focus on the same goals for education rather than having each individual struggling in different directions.

Petersburg City

A Research and Development Project to determine the feasibility of restructuring the general academic curriculum in grades 1-7 and the eighth grade social studies classes in order to incorporate career awareness, career orientation, and career exploratory activities into the existing curriculum.

Specific questions to be answered in the research project.

1. What are the key concepts of career education?
2. Why is career education needed?
3. What are examples of career education in practice?
4. What are the appropriate strategies for implementation for a school system interested in the concept?

Purpose of the research project

The role of work in the life of man has long been of concern to educators. This has been particularly true for personnel in the fields of vocational education and guidance. One aspect of this concern has manifested itself most recently in the increasing research and commentary on the phenomenon of career development and on how these concepts relate to the growth and development of youth. The stimulation for gaining knowledge and insight into this aspect of development has come, in part, from the fact that the work world of today and tomorrow for youth is and will be vastly different from what it was at the turn of the century.

The world of work is invisible to many youth of today because of the increasing size of many industrial complexes and because of the increasing specialization found within most business enterprises. Concurrently the longer period of time spent in compulsory education has created an additional barrier to their active participation in work. As a result students' concepts of the industrial and occupational world may be diffuse and distorted. Suffering in varying degrees from occupational illiteracy, many youth find it difficult to make the transition from school to work.

Included in dropout statistics are many young persons with above average intelligence who have found no meaning in school; who recognize that it is not designed for them. But needs for career development are not restricted to those who dropout. There is reflected in these statistics a portion of the student population who, at the conclusion of high school, enter the labor market directly and they, too, must come to terms with vocational choices and career considerations whether determined by purposes or by chance.

Finally, if the college choice can be seen as something other than an end in itself, as an intermediate step in career development, then those who select this educational option also need help in facilitating their career development. Studies which examine whether career development and choice-making are really of concern to students in elementary and secondary school demonstrate repeatedly that students assert their interest in these areas but also that they are not getting from education assistance in planning the steps which will lead them to their goals, to personal clarification, or to a sense of the vocational and social contexts with which they must cope.

With regard to the supplemental $9 million allocation for vocational education research, the City of Petersburg, Virginia was awarded a grant to establish a Part C demonstration, testing, and development site in the local school division.

The Petersburg Public Schools have, for a number of years, offered strong programs in grades 10 through 12, designed to provide job preparation in a wide variety of occupational areas. These programs have included rather extensive and varied cooperative education opportunities. In recent years, considerable progress has been made in providing career orientation and exploratory experiences at the junior high school level for those pupils who elected to enroll in this program. Consequently, the need now is to:

(a) develop and implement a program at the elementary school level designed to increase the career awareness of students in terms of the broad range of options open to them in the world of work,

(b) improve the guidance and counseling services at all grade levels, but especially at the elementary level, and

(c) establish a placement service to insure the placement of all exiting students in either a job, a post-secondary occupational program, or in an advanced educational program.

GOALS AND OBJECTIVES OF THE PROJECT

Radford City

For several years the Radford public schools have offered strong programs in grades 10 through 12 designed to provide job preparation in a wide variety of occupational areas. These programs have included educational experiences related to the areas of home economics education, business education, distributive education and trade, and industrial education. In this latter area, the educational programs offered include carpentry, drafting electricity, machine shop, and practical nursing.

During the 1970-71 school year a prevocational program was initiated for students enrolled in the ninth grade. This program provided orientation and exploratory experiences related to several occupational areas. During the next few years it is envisioned that this program will be expanded and made available to students in grades seven through nine.

The Radford City School System is in the process of planning a middle school for the future. It is intended that the career education project will be constructed so that it will be mobile enough to be functional in a middle school setting.

Because of the existing programs in career education on the elementary level, the prevocational program in the junior high grades and the vocational program on the high school level, the following needs were identified:

1. The need for the development, implementation, and expansion of a career education program at the elementary level designed to provide students with learning experiences related to career awareness, orientation, and exploration;

2. The need for the development, implementation and expansion of a career education program at the middle or junior high level (6 through 9) designed to provide students with learning experiences related to career orientation and exploration;

3. The need for improvement in the guidance and counseling services provided for students on all levels of this school system;

4. The need for improved placement services on the high school level;

5. The continuing need to develop, evaluate, and disseminate career education materials and techniques; and

6. The need to aid in implementing a career education continuum in the Radford City Schools.

Petersburg City

Three specific goals have been set for the project:

1. To develop and implement a program at the elementary school level and the eighth grade level designed to increase the career awareness of students in terms of the broad range of options open to them in the world of work.

2. To improve the guidance and counseling services at all grade levels, but especially at the elementary level, and

3. To establish a placement service to insure the placement of all exiting students in either a job, a post-secondary occupational program, or in an advanced educational program.

Additionally, three general objectives and eight specific objectives are listed:

General Objectives

To make all educational subject matter more meaningful and relevant to the individual through restructuring and focusing it around a career development theme.

2. To provide all persons the guidance, counseling, and instruction needed to develop their self-awareness and self-direction; to expand their occupational awareness and aspirations; and to develop appropriate attitudes about the personal and social significance of work.
3. To provide an educational system which utilizes and coordinates its activities with all community resources.

Specific Objectives

To help the student -

1. Develop an unbiased basis for making career decisions.
2. Develop positive attitudes towards education. (Attitude development)
3. Develop viewpoints of a career as a way of life and education as preparation for life.
4. Develop and relate self-understandings to career development.
5. Develop understandings of occupational-education relationships. (vocational understandings)
6. Develop understandings of where they are on the educational continuum.
7. Experience career development activities. (adjustment techniques)
8. Test his concepts and skills and experience appropriate roles.

DESCRIPTION OF PROJECT DESIGN

Radford City

Because of these perceived needs, the project has been divided into Phase I and Phase II. Phase I, development and initial testing, was conducted during the period January 1, 1972, through July 31, 1972, at the John Barnett Elementary School. This school was selected as the primary site for this phase of the project because of the wide range of educational levels available in this school. This range is reflected in the data of this school provided in Table I.

In addition to the teachers enumerated in this table, a supervising principal, a librarian, two language arts-reading teachers, one special reading teacher, and a kindergarten aide are employed on a full-time basis. Four full-time educators work in the areas of speech therapy,

Bible history, music, and band, and nine student teachers may be found in varying but specified grade levels. A school psychologist is available on a full-time basis.

Because of the expressed interest of the faculty members, this location was believed suitable for working toward the development and initial testing of a career education program and career education materials for Radford's elementary schools. While emphasis was placed on Phase I activities at this location, teachers, counselors, and students at all locations were encouraged to make use of relevant project personnel and materials, particularly in planning a career education continuum.

Phase II of the project was conducted from July 1, 1972, through June 30, 1973. In this phase, the designed career education program was implemented in the Kuhn Barnett Elementary School which served as the specific demonstration site for the elementary program. Also, a comprehensive career education continuum was implemented in the Radford City Schools. As a part of this comprehensive continuum, the elementary career education program will be introduced into the two remaining elementary schools, McHarg and Belle Heth, using a variety of dissemination techniques. These schools served as demonstration sites for the local dissemination techniques while the Radford School System served as the demonstration site for the operation of a career continuum.

Radford City Schools

Table I

Kuhn Barnett Elementary School

Grade Level	Number of Teachers	Number of Students
K	2	61
1	2	51
2	2	54
3	2	60
4	2	69
5	2	69
6	2	57
7	2	59
Special Education	3	29
Total	19	509

Radford City Schools

Table II

Belle Heth Elementary School

Grade Level	Number of Teachers	Number of Students
K	1	34
1	2	39
2	2	54
3	2	47
4	2	54
5	2	49
6	2	54
7	2	60
Total	15	391

Radford City Schools

Table III

McHarg Elementary School

Grade Level	Number of Teachers	Number of Students
K	1	51
1	2	51
2	2	60
3	2	54
4	2	52
5	2	59
6	2	58
7	2	50
Total	15	435

Radford City Schools

Table IV

Radford Junior/Senior High School

Grade Level	Number of Students
Special Education	7
8	160
9	195
10	150
11	126
12	136
(Total Teachers Grades 8-12 - 46)	
Total	774

To accomplish the objectives specified earlier, three separate but interrelated components were established: administration component, career education component, and third-party evaluation component. The scope of the work undertaken by each of these components is outlined below.

Administration Component:

To coordinate and support the activities of the entire project, an administrative component will be formed. This component will consist of a project director and a secretary. These individuals will be full-time employees of the school system but will devote 15 percent of their time and effort to this proposed project.

The director will be responsible for developing plans to implement project management procedures, to secure and organize staff and equipment, to direct and coordinate each phase of the project, and to exercise control over the results achieved.

Career Education Component:

This component will require the services of a full-time career education coordinator and secretary, two part-time graduate students, and several teachers from the Radford City School System. In Phase I of the project, the coordinator will make a search of research-related literature and ongoing career education programs. He will identify promising approaches, techniques, and materials for conducting such programs during the first three months of the calendar year 1972.

To plan the elementary program, a committee composed of one teacher from each grade level, K through 7, and special education classes at Kuhn Barnett Elementary School will be selected in March. The coordinator will work with these teachers in exploring potential revisions of the elementary school curriculum in order to incorporate career education experiences in the elementary grades and re-focus the elementary subjects around part-time basis during March, April, and May, 1972. During this period, some elementary teachers will actually develop and experiment to some extent with a variety of techniques and materials and visit ongoing career education programs in other schools.

During this same period, a committee will begin planning a career education continuum for the Radford City Schools. In June and July, 1972, selected teachers will be employed full-time for one month to structure a complete school career education program and begin preparing the necessary curriculum materials.

At the beginning of Phase II, selected elementary teachers will be employed for periods of approximately one week and placed in community work situations to gain experience with various aspects of the real "world of work." In August, 1972, one day of the school district's usual three-day workshop for elementary teachers will be devoted to career education and will be used to introduce the teachers to the overall program as well as to the specific techniques and materials to be used at each grade level.

The career education program will be implemented in each of the three elementary schools, with McHarg and Belle Heth Elementary Schools participating as part of a dissemination study. Careful pretests and posttests will be developed or adopted and used with the concurrence of the third-party evaluators to assess the effectiveness of the various treatments in terms of student outcomes. At the end of the school year, the results will be analyzed and recommendations will be made for revision and refinement of the program for the following year.

As part of Phase II, a career education continuum will be implemented in the total school system. Efforts will be made to collect data which will indicate whether the planned continuum of career experiences results in self-awareness, appropriate skills leading to sound career and educational planning and decision-making.

During Phases I and II, opportunities will be provided for the system's teachers to participate in organized educational experiences related to career education. Consultants and organized classes will be used extensively in an effort to broaden the teacher's perceptions concerning career education and to develop a solid base for the initiation of a career education continuum in the Radford City Schools.

The coordinator will coordinate school career education activities with related activities of other groups. For example, he will work with the system's vocational educators and community representatives to secure their aid in developing a sound and workable career education program. This individual will also assume responsibility for locating work stations for teachers and in working with the vocational education director who is responsible for student placement in locating student work stations. He will ensure the availability of consultants and training programs to teachers at critical phases of the project.

In addition, the coordinator will be charged with the responsibility of identifying and securing or developing needed career education materials, of providing help for teachers who develop their own materials, ensuring that materials are illustrated and packaged for teacher and student use, and of supervising the publication and distribution of these items. Efforts in this area will not be restricted to printed materials but will include transparencies, filmstrips, videotapes, audio-tapes, bulletin board displays, and other related items.

Guidance and Placement Component:

Neither of the three elementary schools in the Radford City School District has a guidance counselor. On January 1, 1972, a vocational guidance counselor will be employed for service at the project site. During the period January 1, 1972, through June 30, 1972, the counselor will work with elementary teachers and administrators and with the high school counselors to develop an elementary school guidance and counseling program which will be a part of a complete and articulated program for the Radford City School System. The guidance and counseling program

will be based on systems concepts and employ behavioral objectives. During the 1972-73 school year, the program will be implemented in the elementary schools. At the end of that school year, the results will be analyzed and recommendations will be made for revision, refinement, and expansion of the program for next year.

The guidance counselor will also work with the high school counselors and the vocational education director in formulating a specific placement program. Placement procedures developed by these individuals will be designed to bring the right individual and right job together. Help in securing employment will be made available to all students. A part-time individual such as a graduate student in guidance and counseling at one of the nearby institutions of higher education will be employed to aid in conducting the job-placement activities.

A librarian's aide will be employed in January, 1972, to supervise the operation of the Career Education Information Center which will be established as a separate division of Kuhn Barnett's library. Initial development of the Center will begin under the supervision of the guidance counselor. An attempt will be made to secure various materials related to career education and to consolidate, organize, and disseminate them for teacher and/or student use. Supporting equipment such as slide projectors and tape recorders which are not presently available for project use in sufficient quantities and of the proper type will also be secured and retained at this location.

Third-party Evaluation Component:

Third-party evaluators will be employed to assess the effectiveness of each of the project components described above. These evaluators will also assess the overall value and success of the total project. At the beginning of the project and periodically throughout its conduct, evaluation personnel will meet with project staff to identify evaluative criteria and establish guidelines concerning the collection of data. It is anticipated that the data collected through the project's internal research and development activities will be utilized by the evaluators for making their independent assessment of its affectiveness. However, the evaluation staff will be expected to make at least three visits to the project site.

The qualifications of the principal staff members who implemented the project are as follows:

Project Director

A member of the Radford City Schools Administrative staff will be delegated the responsibility for supervising the conduct of this project. This individual will have had experience in similar supervisory activities and will be familiar with the necessary fiscal procedures.

Career Education Coordinator

An individual with a minimum of two years successful experience as a teacher of vocational education or work experience in a vocational area will

be employed to coordinate activities of the project personnel. Preference will be given an individual who has demonstrated his ability in previous supervisor or coordinator roles, and/or who has had experience in the conduct of career education activities.

Guidance Counselor

Though not identified at this time, the individual who will serve as the elementary school guidance counselor for this project will be certified as qualified for such a position by Virginia State Department of Education. The counselor will have experienced success as a teacher in public school system and in working with vocational education teachers and students. If possible, the individual selected to fill this position will have had a positive experience in working with career education programs, preferably at the elementary level (See Appendix A).

Librarian's Aide

A high school graduate who is experienced in working with youth between the ages of 5 and 12 years will be employed to supervise the operation of the Career Education Information Center. Preference will be extended to an individual who has completed some office and business education courses, especially those dealing with office practice and typing. (See Appendix B).

A complete program of teacher preparation was developed and conducted through this project by the project coordinator. This preparation program consisted of:

1. A four-week workshop in which grade level teachers (K-7) developed instructional materials and initial program planning.

2. A one-week workshop where teachers were placed in work situations through the community.

3. Several one-day workshops where teachers previewed new commercial material and learned new audio-visual techniques.

4. Several one-day workshops where experiences were shared and more program planning was conducted.

5. Several one-day workshops where teachers from schools not involved in the program were able to visit the target school.

6. A two-week workshop involving volunteer teachers (K-12) to develop materials and conduct new program planning.

During the four-week workshop at the beginning of the project and the two-week workshop at the end of the project, new instructional materials were developed. A list of these materials is contained in the appendix. (See Appendix C).

Petersburg City

With the basic career education concepts in mind, the Petersburg School System has formulated and are in the process of developing and implementing a Career Awareness Program for grades 1-8. This program is a pilot project funded by a grant received from the U. S. Office of Education and made available to us by the Virginia State Department of Vocational Education.

The principal supervisory staff members who assist in implementing the project are:

1. Project Coordinator
2. Program Counselors/Resource Teachers (2)
3. Placement Officer

During the school year 1972-73, the Career Awareness Program was implemented in two sections of each grade in the three elementary schools in the project site (Walnut Hill School, Grades 1-3, Virginia Avenue School, Grades 4 and 5, and A. P. Hill School, Grades 6 and 7) and all eighth grade history classes-Peabody Junior High School.

Our instructional personnel consisted of fourteen elementary teachers and five eighth grade history teachers. We had 484 elementary students and 496 eighth grade students making a total of 980 students involved in the program.

In our career education program, we wanted to help each student to develop a very broad awareness of the full range of career options in the world of work. At the same time, to help him develop his own self-awareness, to become cognizant of his own strengths and weaknesses, his aptitudes and capabilities, and his interests and needs so that he can make a realistic consideration of himself, in relation to the many career options, available in the world of work. In addition, we want him to practice and develop logical direction-setting and decision-making skills which will be useful to him throughout his lifetime in considering alternative career possibilities.

In addition, we wanted our program designed to provide each student with:

1. an understanding of careers which serve him, the community, and society.
2. a better understanding of the economic system,
3. comprehension of the relationship between the world of work and education, and
4. positive attitudes toward work and the concept that all honest work has dignity.

To help with the additional planning, development, and evaluation of our program, we selected an advisory committee composed of consultants from the State Department of Education, Virginia State College, our local school administrative personnel, local business and industry, local citizens, parents and teachers to discuss our plans and to receive further suggestions and directions.

The next step in order to structure our program around the career education concept was to explore potential revisions of the existing elementary school and eighth grade social studies curriculum in order to incorporate career awareness, orientation and exploration experiences in these grades and to re-focus the various disciplines around the career development theme.

We wanted career education experiences to serve as the vehicle for teaching basic academic skills to the students, therefore using the career education theme to serve as a common thread to unify the educational efforts at all levels.

This required a great deal of preparation on the part of the teachers. A four-week summer workshop was conducted in order to include opportunities for the teachers to familiarize themselves with the nature of our economy and structure of the work force, the function and techniques involved in teaching career development, and an introduction to available instructional materials and methods.

During the workshop, the teachers were involved in many activities and experiences. A list of the activities and experiences are as follows:

1. Participated in field trips to local businesses and industry,
2. Interviewed resource persons who visited the workshop,
3. Viewed films depicting careers and occupations,
4. Read reference materials pertaining to career education: books, pamphlets, brochures and encyclopedias.
5. Previewed commercially produced career education materials and self-concept/self-awareness materials, which included:

    a. study prints
    b. filmstrips, films
    c. records
    d. cassette tapes
    e. books
    f. job kits
    g. occupational information kits

6. Developed a tentative curriculum guide for grades 1-8, which included the services of consultants from Virginia State College and the State Department of Education.

The culminating activity of our workshop was the construction of forty-eight (48) teaching machines, which we feel are a unique feature in our program. Our main objective was to gain some experience in "hands on"

activities. This objective then became a threefold objective.

1. to gain experience in working with a variety of materials and tools.
2. to gain experience in the mass production of a product.
3. to develop an instructional device to be used in the teachers' classrooms.

In developing the curriculum guide, master units were written in which career education concepts were incorporated into the existing curriculum. The area of social studies was used as the main vehicle to accomplish this goal. Educational goals, career education concepts, and behavioral objectives were stated. Activities were then suggested which included activities in the other content areas in which the concept of career education could also be accomplished.

From these master units, mini-teaching units were developed in more depth, executed, evaluated, revised and then submitted to our office to be included in the curriculum guide.

Since one of our major objectives of the program is concerned with self-awareness, - his likes, dislikes, interests and to be able to accept differences in others, and to realize that each person can contribute to society; all initial units begin with the study of the individual.

The next units then begin to acquaint the students with a variety of careers as they relate to the family, school, neighborhood, our city, state, nation and world and what role they play in our economy and society.

Even though our students are not expected to make a career decision at this time, a closer look at one's own characteristics in relation to certain job characteristics should be developing.

The units for grades 1-3 focus on developing an awareness of work performed in the immediate surroundings of the child and of the workers who perform it. It is important that each child develops an awareness that work exists for a purpose. The primary teachers have planned activities to accent different jobs and their contribution to the child's life.

The units for grades 4-6, while retaining their emphasis on self-awareness, progress toward a more detailed examination of the work world. The students are led to relate their own interests to careers which might prove satisfying in his adult life. The earlier units centered around the students' immediate environment, while these later ones expand into the larger world.

The units written on the seventh and eighth grade level are designed to enable the student to expand, rather than limit, his knowledge of careers and career opportunities. To limit one's career choices in the early years is really an error, for we know that individuals change their minds regarding their chosen occupations many times before actual entry into the first "full-time" position of employment.

Also an important focus at this level is on factors related to career choice, educational planning, decision making, personal information and individual differences which will greatly affect an individual's choice of a career.

In all of the grade level units, we suggested that the following activities be given major stress throughout the program:

1. Role playing
2. Simulation activities
3. Field trips - whether whole class, small investigation teams or individual trips
4. Individual and group guidance activities
5. Parental involvement
6. Career information - whether by
   a. discussion
      or
   b. investigation
7. Self-concept development
8. Tie-in activities or "hands on" activities

We believe that this method of unit writing is more preferable than the organization of special units on Work, because it makes career development continuous throughout the year.

One of the features of our program is to stress individualized instruction. Therefore, we feel that by employing the concept of learning centers/learning stations as a teaching method we can accomplish this objective.

The learning center implies an enlarged learning environment and greater independence on the part of the learner. The teacher then becomes more than a teacher, she becomes a facilitator of learning.

The learning center implements the idea that:

1. each child will grow at his own rate
2. in his own style, and
3. to his uniquely personal potential

The learning centers can provide a high personal experience for the child and can facilitate learning through a feedback system.

The community has demonstrated their acceptance of the Career Awareness Program by their excellent cooperation in responding to requests for resource people and for field trips to local businesses and industries.

Parental involvement has included their serving as resource persons and accompanying classes on field trips.

RESULTS AND ACCOMPLISHMENTS

Radford City

This project has resulted in a much closer relationship between the community and the school. The project staff concentrated on getting parents involved in the educational process through serving as resource people to classrooms and on field trips. When parents were not available, other resource people from the community were asked to participate.

All of the local businesses, industries and services were enthusiastic about the project and supported the project throughout. Over one hundred field trips were used to expose children to the immediate working community of which they are a part.

By involving all of these people in a cooperative educational effort, some of the barriers between the school and the community were overcome. New efforts in public relations, advisory groups, and articulation with other educational agencies are needed through future career education programs.

Student, teacher, parent, community, and administrative interest in the project was extremely high throughout the project. Students found school to be much more interesting through the enriched curriculum and activities. The fact that education was relevant to their particular needs was an exciting new experience.

The materials which have been developed through this project have been disseminated on request to all fifty states and throughout the Commonwealth of Virginia. The mere number of requests for these materials indicates a common usefullness of them.

Petersburg City

A detailed list of results and accomplishments by each quarter is included in Appendix D. An overview of these is included in this part of the report.

School administrators, counselors, teachers and parents continue to hold favorable attitudes toward the career education concept. Increased support has been noted from area businesses and industrial organizations.

Data indicated that the project has produced the following results: (1) the career education program had positive response from students as well as parents, (2) staff and faculty have demonstrated an increasingly receptive attitude toward career education, (3) the placement service has been successful in accomplishing its objectives.

A summary of the accomplishments are listed as follows:

1. Researched available career education literature.

2. Attended conferences pertaining to career education.

3. Planned and conducted in-service training for teachers.

4. Organized an advisory council.

5. Previewed and purchased materials, supplies, and equipment to aid in implementing the program.

6. Delivered presentations concerning the project to educators and to the community.

7. Disseminated information about the project to interested persons.

8. Conducted periodic meetings with teachers and principals to discuss progress and problems encountered.

9. Arranged on-the-site visits to other project sites.

10. Arranged project visitations.

11. Developed a resource person and field trip file.

12. Conducted conferences with the third-party evaluators.

13. Informed the local administration of progress and problems.

14. Planned for the expansion of the program.

EVALUATION OF THE PROJECT

Radford City

1. Teacher Attitude Inventory (See Appendix E).

Teacher attitudes, as compared by the Teacher Attitude Scale, administered at the beginning and end of the project, reflected little change in teacher attitudes toward career education. However, all of the noted changes in teacher attitudes did reflect more concern about career education in the elementary school. Yet the changes were not great.

The greatest changes were in the following items:

a. More teachers disagreed with the idea that attitudes and values are more affected by early life experiences than by school experiences. (5)

b. More teachers agreed that interests can be explored before vocational maturity is reached. (4)

c. More agreed that the majority of school parents and the business community are eager to become involved in the educational process. (4)

d. More disagreed that the majority of school personnel will individually admit, but collectively deny, the irrelevance of much of today's curriculum. (4)

e. More teachers agreed that a successful program of occupational development would be possible if:

1. Attractive, multimedia learning packages were developed and made available; (21)

2. A massive teacher training and in-service program were conducted. (21)

It is possible that there would have been a greater difference in teacher attitudes had the pretest been administered to the project teachers prior to their initial workshop in career education. The pretest was not administered until the beginning of the school year, owing to the establishment of the evaluation team at that time. Teacher attitudes were likely more affected by the workshop than by the later experiences.

2. Pupil Career Awareness Inventory (See Appendix F).

a. Kindergarten

Only two items reflected much change in the kindergarten pupils between the pretest at the beginning of the year and the posttest at the end:

(1) Fewer children said that they were going to worry about choosing a job before they were out of school. (5)

(2) Fewer children said that they thought there was only one job for one person. (10)

b. First Grade

Three items reflected the change in pupil career awareness in the first grade:

(1) More children said that they were going to worry about choosing a job before they were out of school. Perhaps the children meant 'concern' rather than "worry" here. (11)

(2) Fewer children thought that there was only one job for one person. (8)

(3) Fewer children said that they knew what work was like. The only reason the evaluation team can give for this response is that perhaps the question was too big a question, and that now, since the pupils are more aware of the world of work, they may feel more inadequate in their knowledge. (8)

c. Second Grade

Second graders indicated changes in their awareness to the following:

(1) More said that when they chose a job, they could choose another one later on. (15)

(2) More said that they knew much about different jobs. (22)

(3) More said that they thought that there is only one job for each person. Perhaps they meant by this that there is a job to fit a person. (10)

(4) More indicated that they knew what work was like. (7)

d. Third Grade

(1) Item #2 indicates students becoming more aware of the work world ahead of them. (7)

(2) Item #4 indicates exposure to different jobs in their career education project. (14)

(3) Item #5 is a poor question.

(4) Item #6 might show more involvement with work and correlates with item 4 above. (9)

(5) Item #9 is a poor question.

e. Fourth Grade

(1) Item #1 is a poor question.

(2) Item #3 is a poor question - a negative approach for positive answer of students becoming more aware of different jobs.

(3) Item #4 is a poor question - an increase indicates there is only one job for a person. (7)

(4) Item #7 is a misleading question - a person does not have to enjoy his job is the feeling of 7 more students.

f. Fifth Grade

(1) Item #1 is a poor question.

(2) Item #6 is a negative question - same as other grades; students becoming more aware of different jobs. (18 more false)

(3) Item #7 increase; gives indications one must plan for his career; cannot leave it to chance.

(4) Item #9 is a poor question. A person does not have to enjoy his work is the feeling of more students. (6 less true)

g. Sixth Grade

(1) Item #4 increase of 24, stating they think about the job they desire for the future.

(2) Item #6 as other grades showed there is an increase of knowledge about different jobs.

(3) Item #12 shows increase in the number of students having a choice in the job he will get.

(4) Item #8 is a poor question, answer misleading.

h. Seventh Grade

Several positive findings between the pre- and post-test data are significant at the seventh grade level.

(1) More students (17) were thinking about the job they might enter.

(2) Eighteen additional students were aware that securing a job involved more than chance.

(3) Six more realized that newspapers list job opportunities.

(4) Negative findings occurred for items 2, 5, and 6: Poorly constructed statements, negative statements or vague ones could account for these findings.

i. Primary Special Education

(1) No significant findings were found in data from pre- and post-tests with Primary Special Education except the response to item one. Three more students responded negatively that they could not choose another job after they had chosen an initial job. The change may be attributed to instruction aimed at creating an attitude toward job stability for such a student.

(2) Several questions were poorly constructed for assessing the validity of responses.

j. Intermediate Special Education

Two items indicate positive changes for the Intermediate Special Education students:

(1) Five additional negative responses to item four signifies that these students are thinking about the job they wish to enter.

(2) Five more students responded positively to the relationship between their schoolwork and future occupations.

(3) Several spurious questions were in the test.

There were some recognizable trends in career awareness changes in the pupils as reflected by more than one grade level. These were:

(1) More upper grade pupils (4-7) said that they knew more about different jobs.

(2) More pupils in grades 5-7 said that planning was necessary to get a job.

(3) More pupils in grades 6-7 said that they thought more about the jobs they wanted.

However, the Pupil Career Awareness Inventory designed and administered to the pupils did not reveal much new knowledge about the career education project in its effect upon the pupils. In part, this seemed to be due to the instrument itself. Many questions were vague or too big to be meaningful. Others were poorly stated as negative statements. Some better way of gathering information about pupil learning in career education is needed. Evaluation for the future should include the development of better approaches to pupil knowledge of and attitudes toward career education.

Petersburg City

The evaluation section of this report lacks empirical evidence of the growth of the children in terms of career awareness as the evaluation team did not become a part of the project until its midpoint and functioned without specific guidelines for its reports until the last week of the project. The above circumstances, however, did not limit the team from obtaining lesser forms of objective information and subjective evaluations of participants which are presented in the report of the team members which follows.

The report reflects the individual observations of the team members obtained from both common and independent sources.

Since the objectives were not stated in terms easily measurable and there were no pre- and post-testing of students, there was no objective data available to the team to ascertain if the efforts really made a difference. This limitation was recognized by the professional and instructional staff and efforts were being put forth to overcome their limitations for next year. The tests that will be used have been identified and they are now stating the objectives for each of the grade levels in behavioral terms.

I. Evaluation

A. Specifically the program has been evaluated by:

1. Teachers involved in the program
2. Teachers not involved in the program
3. Pupils involved in the program
4. Pupils not involved in the program
5. Parents
6. Resource people
7. Principals of the schools

B. The Project Coordinator had overall responsibility for the program evaluation.

C. In order that continuous and more scientific evaluations become a high priority of the project, the following measures will be in operation next year:

1. Formal and informal pre-assessment of pupils needs will be secured at the beginning of the school year.
2. More parental involvement will be included in the planning, thus making it possible to secure some informal evaluation from a broader scope of the school community.

D. In interviews with teachers who are new to the project, it was reported that children in the project had fewer absences than children not in the project. Also, teachers reported that some children who had been chronic absentees in previous years, were regular in attendance.

E. Since there were no standardized achievement test administered to the children, only a subjective evaluation can be given. In an interview with teachers who were not involved in the project this year, without exception they felt that there was greater achievement in the Career Awareness group based on the following observations.

1. Career Awareness pupils seemed highly motivated.
2. Career Awareness pupils read widely.
3. Career Awareness pupils made constant use of the library.
4. Career Awareness pupils worked on individual and group problems ravenously.

5. Career Awareness pupils became more articulate.

6. Other pupils in the school constantly asked to visit the classrooms of the Career Awareness pupils.

7. Career Awareness pupils had a wide range of experiences and resources (human and material) available to them.

8. Career Awareness pupils seemed to have greater freedom to learn.

9. It was revealed also by these teachers that they had made requests to be transferred to the project because of the quality of learning on the part of the children seemed to have been enhanced by program experiences.

II. Curriculum Guide

A. According to the teachers, the guide now in use, contains excellent content, however it is much too large and fragile for constant use. It was recommended that the guide be divided into three sections for example:

Grades 1-3
Grades 4-7
Grades 8-9

It was felt also by the teachers that a complete set of guides should be left in the professional library of each school in order for teachers to know or follow the continuity of the program.

B. The guide will include:

1. General goals
2. Specific objectives stated in behavioral terms

III. Parental Involvement

Parents were involved in the program to a large degree as resource persons. These persons were invited or volunteered to come to the class and talk about their work, and when possible there were demonstrations given to enhance the children's understanding regarding their work. Parents who could not bring their work to the school helped to arrange visits to their jobs for the children. Parents were used as chaperons on trips.

IV. Teachers

The majority of the teachers felt that they were adequately trained for the Career Awareness Program. Some of the teachers found it difficult to integrate the Career Awareness objectives into total school curriculum. To these teachers the program did not appear realistic until later in the year. All teachers wish to continue with the program next year.

The materials which were purchased were available and useful, but absolutely too limited according to the reports from the elementary school teachers.

The resource persons listed in the interview were:

1. minister
2. electrician
3. dentist
4. veteriarian
5. paratrooper

For the most part, the resource people who came were invited upon the suggestion or invitation of the children or individual pupils in the class. Many of the resource people were parents of these particular children. The use of available resource people was virtually untapped, was the consensus of the elementary teacher.

On the basis of the report written by one class, these children were excited about the program and listed, for example, the following:

1. I have learned so much about careers.
2. I have learned that all work is important.
3. I can better decide what I want to do when I grow up.
4. Every school should have a Career Awareness Program.
5. People don't know what to do because they don't know what's going on.
6. If all schools had Career Awareness, everyone would pick out the job he liked best.
7. I hope that I can be in a Career Awareness Program next year. I want to know about all kinds of jobs.
8. I have learned that all jobs are important and that all work is good.

Teachers who will be involved in the project for the first time next year, gave as one of their reasons for coming into the project, was the fact that they could not live through another year of trying to teach unhappy children. Children who were not in the Career Awareness classes felt that they were being discriminated to be a part of the various activities and experience such as trips, learning centers, see and listen to resource people. No matter how hard they worked (within the framework of their guidelines) it was impossible to compensate. Children in the project began to feel special. These kinds of feelings stimulated friction among the teachers and pupils.

The teachers in the various elementary schools who were not involved in the project this year, but have been included in the project for the 1973-1974 school year, did not understand what the goals of the program were. They felt that the majority (if not all) of the non-involved teachers believed that the program was geared toward special education or non-high school - college bound children - thus vocational educational oriented. Later in the school year, they began to

obs rve objectively only to discover that, here is the opportunity that they had dreamed of. Examples listed included:

a. Organized Learning Centers
b. Materials (wide and varied)
c. An opportunity to stray away from the constant use of the basic text
d. Pupils had greater freedom to learn in terms of needs and interest
e. Constant use of library
f. Opportunity for individual instruction
g. Independent study
h. Independent research
i. Large and small group activities
j. Opportunity for firsthand experiences through trips and resource persons

The teachers involved in the program realized that there was lamentable lack of understanding among the entire school and community of the projects goals. Thus, it was decided to give an assembly program for the school and parents. This opportunity changed the thinking of the entire school as well as the parents. Parents said they were not aware of the wonderful insights that their children were gaining.

In spite of the limitations noted in the evaluation section, the Evaluation Team feels that project was a success from the children's, teacher's, and administrator's perspectives.

In addition to this evaluation which was done by a third-party evaluator, the coordinator also prepared an evaluation sheet to be completed by each teacher in the program. Appendix H contains the questions and answers given by sixteen teachers in the project. These comments will be helpful as the program is expanded in Petersburg City Schools.

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Radford City

The effect of career education on pupil achievement was considered in the following ways:

1. A comparison of pupil achievement scores in reading and mathematics was made between the pupils in the Career Education Program, Kuhn Barnett School and the pupils of Radford City in general.

2. A primary and an upper grade level were chosen to show the relative effects of project upon the basic skills. The primary grade was this year's second grade. The upper grade was this year's fifth grade.

3. Test scores from the Metropolitan Achievement Tests secured from testing at the end of last year and the end of this year were compared. The average grade equivalents for both groups at both levels were compared in reading and mathematics (See Appendix H).

4. The test results showed that in the primary reading there was a slight difference of 1.3 months favoring the city pupils. All other results indicated that the project pupils at Kuhn Barnett School gained more than city children in general did. This included reading at the upper grade level and mathematics at both levels. None of these results indicated a significant difference between the two groups in reading or mathematics.

This project was extremely successful at fulfilling each objective set forth in the original letter of assurance. A comprehensive and concentrated elementary career education program was implemented at the project site. Expansion and plans for the formation of a continuum were also developed.

Several recommendations should be listed for future projects in career education:

1. More accurate individual guidance based on accurate projections of future needs.

2. Better articulation between school, home, and community.

3. Better public relations on the part of all school personnel.

4. More preparation for all teachers at all levels to work effective with students on an individual basis.

5. More involvement of students and teachers in the development of an effective instructional program for the entire system.

Petersburg City

It is apparent that the project's goals and objectives have been met. Data indicated that a wide variety of innovative techniques were used to implement each of the project's objectives.

The participating teachers expressed extreme interest in the program, felt that the program was definitely worthwhile, and recommended its continuation. The teachers admitted that the program required additional planning and work; but felt that the rewards were definitely satisfying. This year's teachers, as well as those coming into the program for the first time, have already begun planning for the next year.

Because of the progress of this year's program, many of the new teachers expressed interest in the program and requested to be involved in the continuing program.

Several of the more experienced teachers have indicated that this is what education should have previously been providing for our students.

Interest in career education has generated in neighboring school systems, as well as throughout the state, as indicated by the visitations to the project site and the request for materials and assistance in implementing a career education program.

Many parents have indicated their interest in the program and have inquired as to its continuation.

The students seemed to be more alert and interested in classroom activities and seemed to assume more responsibilities for completing school tasks. There seemed to be a definite improvement in the development of a more positive self-concept, as well as improvement in concrete values and attitudes.

The local administration were complimentary concerning the progress of the program and exhibited more interest and support toward the continuing program.

Recommendations

The following recommendations are offered:

1. More parental involvement.
2. Increased dissemination efforts directed toward public understanding of career education and the local project.
3. More occupational information testing as well as testing for academic achievement.
4. Parental involvement in the total evaluation of the project.
5. Additional activities to promote attitudinal changes (values, attitudes pertaining to self as related to developing a positive self-concept, good citizenship, self-discipline, and good work habits).
6. Additional activities to promote the decision-making process.
7. Additional "hands-on" activities as a motivational technique.
8. The curriculum guide be utilized as was designed in order to maintain a sequential development in the program.
9. The addition of another Program Counselor/Resource Teacher who has a background in guidance and counseling.
10. The project's evaluation be administered by a private subcontractor in order to obtain more supportive data.
11. More planning for multi-activities at the junior high school level.

APPENDIX A

CAREER GUIDANCE COUNSELOR

1. Employed on 10 month basis - begin and end the year on same dates as teachers.
2. Hours of each work day - 8:30 A.M. - 3:30 P. M.
3. Attend all teacher's meetings.
4. Given same responsibilities as teachers. Ex: Recess supervision, hall and office bulletin boards, committee work, SCA (or other group), parent-teacher conferences, PTA meetings, etc.
5. Attend educational meetings pertaining to the position.
6. Visit other programs in career education and guidance.
7. Attend meetings and assist when visitors come to the school to observe the program.
8. Work with teachers on implementation of career units.
9. Provide career materials and self-awareness materials from the guidance office when needed by teachers.
10. Work with students on a one-to-one basis with personal problems.
11. Work with individual students in career exploration in relation to their ability, interests, values, and needs.
12. Provide guidance with small groups of students on social and academic problems.
13. Work with small groups of students in exploring various careers - Ex: Use Career Game - follow up with students reading and viewing materials on these careers as well as other careers they wish to learn about.
14. Arrange for resource people to talk with classes about their occupations or other related fields on the career units.
15. Suggest and arrange field trips related to the career units. Call a few days before trip to remind the person about the trip. Keep calander of monthly field trips in main office. Provide a monthly list of field trips for the principal and the school board for approval.
16. Consult with coordinator about bus arrangements for the field trips.

17. Accompany classes on some of their field trips.

18. Discuss various aspects of the career education program with the coordinator.

19. Conduct classroom guidance on self-awareness and self-understanding.

20. Have classroom guidance with students investigating many career possibilities through use of various career materials. Ex: WORK Kit, Occupational Briefs, Desk-top Kit, Film-strips, etc.

21. Talk with classes about attitudes of work and things employers look for in employees.

22. Assist with career activities and projects in the class-room when teachers need help.

23. Work with teachers on revision of units that have been taught.

24. Order guidance materials and career education materials for office.

25. Consult with teachers, principal, school psychologist, and parents on students counseled or needing counseling.

26. Observe students in the classroom setting.

27. Help kindergarten teacher with business day.

28. Assist first grade teachers on first day of school.

29. Prepare job board-bulletin board and consult with teachers responsible for hiring students in the various jobs.

30. Assist in the production of career education assembly programs, etc.

31. Administer (with additional help) the Pre and Post tests for Career Education Program to the K-3 grade classes.

32. Keep a chart on career education units taught and consult with teachers to keep updated.

33. Compile an album of all the photographs taken in the program.

34. Work together with the librarian and librarian aid to order materials for the program and consult with teachers, coordinator, and principal to coordinate the program activities.

APPENDIX B

LIBRARIAN AIDE

The librarian aide is employed on a ten month basis and works a regular teacher and librarian school day from 8:30 to 3:30, Monday through Friday. She is in charge of the career materials center of the library. All work done in the center is similiar to the regular librarian's work only all materials are career-oriented. In addition to the general library duties, the aide does the following:

I. Works With Librarian
   1. Assists in career materials orders.
      A. Decision on materials to be ordered.
      B. Typing of orders.
      C. Processing materials.
         a. Accessioning
         b. Cataloging
         c. Labeling
         d. Shelfing

   2. Assists in the general library duties.
      A. Shelfing books
      B. Cataloging
      C. Check-out
      D. Filing
      E. Supervision of classes

II. Works With Teachers
   1. Provides the teacher with all related materials to the unit being taught.

   2. Sets up schedule with the teacher for groups of students to come to the center to view materials usually related to the unit being studied.

   3. Provides camera and film to teachers when needed for classroom activities, field trips, resource persons, etc. and taking the pictures when requested.

   4. Keeps record of materials teachers suggest to be ordered.

   5. Go with classes on field trips and assist in activities when requested as time permits.

   6. Provides teacher with equipment from the library when requested and, if necessary, shows how to operate it.

III. Works With Students

1. Scheduled Groups
   A. Teach the students how to operate the equipment they will be using.
   B. Teach the proper handling of the materials to be used (such as a filmstrip).
   C. If necessary, provide some sort of introduction to the material (normally done with the primary grades).
   D. See that all students in the group have a specific job to do (such as advancing the filmstrip, taking care of the recording, rewinding the filmstrip, etc.)

2. Unscheduled Students
   A. Teach the operation of the equipment to be used.
   B. Assist student in finding and deciding on materials to be viewed or checked-out.

APPENDIX C

CAREER EDUCATION INSTRUCTION UNITS

KINDERGARTEN

1. Clothing (Nothing To Wear But Clothes)
2. Clothing (This Is The Way We ? Our Clothes)
3. Community Helpers
4. The Family
5. Food and Nutrition
6. Health
7. Insects
8. Music
9. The School
10. Self

FIRST GRADE

1. Armed Services
2. The Community
3. Deep In The Ocean
4. The Family
5. The Farm
6. Let's Go On A Safari
7. The School
8. Self
9. The Toy Shop

SECOND GRADE

1. The Arts
2. Clothing
3. Custodians (Janitors)
4. The Farm
5. The Grocer
6. Our Homes - Shelter
7. Put A Tiger In Your Tank (Fuels)
8. Radford - Then and Now
9. Transportation (Boats)
10. Transportation (Bus)

THIRD GRADE

1. Aerospace
2. Dentistry
3. Hospital Emergency Room
4. Let's Go To Town
5. Postal Services
6. Radio Station
7. Recreation Department
8. School Management
9. The Weather
10. The Zoo

FOURTH GRADE

1. Conservation
2. Jobs In Virginia
3. The Restaurant
4. Television
5. This Is My Life
6. Who Works For The City
7. World of Work

FIFTH GRADE

1. Agriculture
2. Botany
3. Federal Government
4. Forestry
5. Getting To Know Your Newspaper
6. Merchandising
7. Mind and Body
8. Money and Banking
9. Recreation
10. Rocks and Minerals
11. Telephone Industry
12. Textiles
13. Utilization of Resources

SIXTH AND SEVENTH GRADES

1. Advertising
2. Art
3. Bank
4. Careers Through Knowledge of Simple Arithmetic
5. Careers Through Music
6. Cartography
7. Chemistry
8. Communication Through Conversation
9. Dictionary
10. Ecology
11. Food Services
12. Geometry
13. Good Speakers
14. Greek and Roman Mythology's Relationship With Today's Industry
15. Lynchburg Foundry
16. Machines
17. Magnetism and Electricity
18. Measures and The Metric System
19. Newspaper
20. Nuclear Energy
21. Oceanography
22. Weather

SPECIAL EDUCATION (INTERMEDIATE EDUCABLE)

1. Camping
2. From The Ground To The Table (Food)
3. Homes and Shelter
4. Lynchburg Foundry
5. Service Station and Garage Workers
6. Telephone
7. What Am I Like? (Body)

SPECIAL EDUCATION (PRIMARY EDUCABLE)

1. Clothing
2. Grocery Store
3. Homes - Shelter
4. Hotel
5. Postal Services
6. Restaurant
7. Self
8. Transportation - Buses, Taxis, Trucks

SPECIAL EDUCATION (TRAINABLE MENTALLY RETARDED)

1. Clothes and Sewing
2. Food and Nutrition and The School Cafeteria
3. Home Services and Child Care

HIGH SCHOOL

Model for Implementation of Career Education

APPENDIX D

Results and Accomplishments of the Project

Time Schedule

February 2, 1972 - March 31, 1972

1. A research of available literature on career education concepts, programs and location of other project sites was conducted.

2. Letters were sent to career education programs and career education instructional materials developmental centers.

3. Conferences were held with the following persons in order to receive suggestions for the initial planning of the program.

a. Dr. Harry L. Johnson,-Industrial Arts Ed., Virginia State College, Petersburg, Virginia.
b. Mr. Bernard R. Taylor - Elementary Ed., State Dept. of Education, Richmond, Virginia.
c. Mrs. Maude Goldston - Vocational Education, State Dept. of Education, Richmond, Virginia.
d. Mr. Thomas Hughes - Industrial Arts Education, State Dept. of Education, Richmond, Virginia.
e. Mr. Rayford Harris - Industrial Arts Education, Virginia State College, Petersburg, Virginia.

4. Letters were sent to the following divisions in the State Department of Education requesting consultants to assist in the planning and developmental stages of the program.

a. Elementary Education
b. Secondary Education
c. Special Education
d. Guidance and Testing Services

5. The following items were prepared:
a. Abstract (includes general objectives for each phase of the program)
b. Rationale (a rationale for the Petersburg Career Awareness Program)
c. Career Education - What and Why (a paper designed to provide teachers, administrators, supervisors, and lay persons with a brief explanation and a rationale for career education)

6. Conferences were held with the school principals involved in the project site regarding plans for the program and the selection of outstanding teachers to be involved in implementing the program.

7. An advisory committee, composed of consultants from the State Deptment of Education, Virginia State College, school administrative personnel, principals and teachers of the schools in the project site, representatives from local business and

industry, parents, and local citizens.

8. Contacts were made with representatives of commercial sales companies to preview commercially produced materials on the world of work and career development. Several complimentary copies of instructional materials and books were received and previewed by the developmental staff members. Additional materials received and previewed were in the form of films, filmstrips, cassettes, records, study prints, occupational kits, and other visual aids.

9. The coordinator of the project attended the ASCD Annual Conference in Philadelphia, Pennsylvania. The major concern of the coordinator was the three-day Action Laboratory on Career Development K-12.

10. The program developmental staff attended a Career Development presentation given by Miss Callie L. Stanley, Former Supervisor of Distributive Education, Richmond Public Schools.

April 1, 1972 - June 30, 1972

1. A presentation on career education was presented to the local administration staff. The presentation included the following:
   a. Film - "Career Education"
   b. Distribution of materials developed by program staff members, (Abstract, Rationale, and Career Education - What and Why?)
   c. Discussion of:
      1. Description of program
         (a). Administrative structure
         (b). Program design
         (c). Program components
      2. Unique features

2. A presentation on career education was presented to the Walnut Hill Elementary School faculty. The presentation followed the same format as previously stated for the local administrative meeting.

3. Conferences were held with the prospect teachers of the program at their respective schools to discuss the overview of the program and the general concepts of career education.

4. Additional conferences were held with the school principals involved in the project site regarding the final selection of teachers to implement the program.

5. Final selection of teachers to implement the program for the school year 1972-73 was completed.

6. An orientation meeting was held May 4, 1972, with the teachers selected to participate in the program. The following is an agenda of the meeting:

(a). Film - "Career Education"
(b). Distribution of packets of materials pertaining to career education.
(c). General discussion of program
(d). Display of curriculum guides received from other career education programs.

7. Some career education materials were made available to teachers for use in their classrooms on an experimental basis.

8. Research was continued of career education literature, career education programs and locations of other project sites.

9. A search of instructional materials, testing materials, supplies and equipment for implementing the program was continued.

10. A more detailed understanding of the scope and intent of the program was developed.

11. The program developmental staff attended a Career Education Conference on May 12, 1972 in Washington, D. C. sponsored by the Educational Testing Service, Princeton, New Jersey.

12. An advisory council meeting was held May 17, 1972 with representatives from the local administration staff, Virginia State Department of Education, Virginia State College, parents, local business and industry, and principals and teachers of the project site attending. A summary, listing the major suggestions discussed at the meeting, were sent to all council members.

13. The program staff members made an on-the-site visit to Anna Arundel County, Maryland on May 19, 1973 to observe the career education program.

14. Extensive plans for a four-week workshop to be held July 5, 1972 through July 31, 1972 for the teachers participating in the program were completed. Plans were made for the career awareness staff and teachers to be involved in developing and/or selecting instructional materials; in acquiring additional knowledge of the world of work; and in developing techniques and strategies relative to the teaching of career education.

15. Letters were sent to local businesses, industries, and citizens explaining the Petersburg Career Awareness Program and requesting their services as resource persons for the summer workshop. The resource persons will be utilized to help the teachers acquire additional knowledge of the world of work and to acquaint them with the various resource persons

that would be available for classroom visits.

16. Letters were sent to the following persons and Teacher Education Institutions explaining the Petersburg Career Awareness Program and extending an invitation to attend the summer workshop:

a. Mrs. Vivian Ely, Distributive Education Department Chairman, Learning Resource Center, Virginia Commonwealth University, Richmond, Virginia
b. Dr. Dale Oliver, Director of Vocational Education Projects, Virginia Polytechnic and State University, Blacksburg, Virginia
c. Virginia Commonwealth University, Richmond, Virginia
d. Hampton Institute, Hampton, Virginia
e. Norfolk State College, Norfolk, Virginia
f. University of Virginia, Charlottesville, Virginia
g. Longwood College, Farmville, Virginia
h. College of William and Mary, Williamsburg, Virginia
i. Virginia Union University, Richmond, Virginia
j. Saint Paul's College, Lawrenceville, Virginia
k. Madison College, Harrisonburg, Virginia
l. Virginia Polytechnic Institute and State University
m. Old Dominion University, Norfolk, Virginia
m. Radford College, Radford, Virginia
o. Virginia State College, Petersburg, Virginia

July 1, 1973 - September 30, 1973

1. A four-week workshop (June 29, 1972, July 5, 1972 - July 31, 1972) was conducted for teachers participating in the program.

2. Plans were developed for the organization and structure of the career awareness classrooms to promote activity - centered experiences, individualized instruction, and the use of multi-media materials. The classrooms in all grade levels will reflect the use of learning stations and learning centers.

3. After viewing and evaluating commercially produced career education materials and other supplementary materials and in conjunction with the recommendations of the teachers, requisitions were made for instructional materials, supplies, and equipment to assist in implementing the program. The materials, supplies, and equipment selected are designed to be used as reference materials, motivational techniques, role playing and simulation activities.

4. The Richmond News Leader, Richmond, Virginia carried a feature story about the Petersburg Career Awareness Program in the August 30, 1972 publication.

5. Letters were sent to various persons including an overview of the project and requesting their services as a resource person during the school year. A list of questions that the students would ask the resource persons was also included.

A file of available resource persons for the year was developed.

A resource request form was devised for the teachers to submit to the program counselors.

6. The program staff members attended a one day conference on September 8, 1972 at Virginia State College, sponsored by the Career Planning and Cooperative Education Service. Topic: Health Services and Career Seminar. Purpose of Meeting: Organizational meeting with Tri-City area groups to discuss and plan a future program centered around careers in health services. Organizations and Institutions represented:

a. Medical College of Virginia, Richmond, Virginia
b. Petersburg General Hospital, Petersburg, Virginia
c. John Randolph Hospital, Hopewell, Virginia
d. Kenner Hospital, Fort Lee, Virginia
e. Petersburg Medical Faculty, Petersburg, Virginia
f. Fourth District Medical Society
g. Old Dominion Medical Society
h. Virginia Council on Health and Medical Care
i. Virginia State College, Petersburg, Virginia

7. On September 29, 1972, District "D" of the Virginia Education Association was held in South Hill, Virginia. At the Trade and Industrial Arts Education departmental meeting, a presentation explaining the Petersburg Career Awareness Program was presented by Mr. Garfield Jackson, Program Counselor. The presentation consisted of an abstract of the program and a slide presentation of the summer workshop.

8. An informal meeting with the participating teachers was held September 1, 1972 to discuss last minute problems encountered or expected in implementing the program.

9. The following meetings were held in the respective schools to discuss progress and problems encountered.

Walnut Hill School - Sept. 25, 1972
Virginia Avenue School - Sept. 26, 1972
A. P. Hill School - Sept. 27, 1972
Peabody Junior High School - Sept. 28, 1972

10. Weekly meetings in each school were scheduled to discuss accomplishments and problems encountered.

11. A conference on Health Services was presented at Petersburg General Hospital. The conference included

demonstrations and exhibits. An invitation was sent to the Career Awareness Office and was attended by Mr. Larry J. Bennett, Program Counselor.

October 1, 1972 - December 31, 1972

1. The proposal for the Career Education Program for the 1973-74 school year was written by the coordinator of the program and submitted to the State Department of Education. This proposal outlined the involvement of the eighth and ninth grades at the junior high school. The proposal was developed after numberous conferences with the local administrative staff.

2. Additional requisitions were made for instructional materials and for supplies to assist in implementing the program.

3. The Program Counselors/Resource Teachers engaged in the following activities:

a. Collected and distributed career information brochures and pamphlets to classroom teachers.
b. Arranged for resource people for career awareness teachers. These resource persons were obtained from business, industry, and the professions. Students from the senior high school and colleges were also used.
c. Arranged for total class, small investigation teams, and individual field trips.
d. Met with teachers by grade level and assisted in planning career education activities
e. Took pictures depicting career education activities in the classroom and on field trips. These activities have been continued throughout the year by the Program Counselors/Resource Teachers.

4. The following resource people visited the classrooms:

a. Pet Shop Owner
b. Veterinarian
c. Rock Collector
d. Pharmacist
e. Naval Officer
f. Police Officer
g. Fireman w/ fire engine
h. Dental Assistant
i. Building Trades Student
j. Airplane Pilot
k. Helicopter Pilot
l. Mail Carrier
m. T.V. Weatherman
n. Agricultural Extension Agent
o. Artist
p. Naval Recruiter (Activity was video taped)

q. Travel Agent
r. 4t.. District McGovern - Shriver Campaign Committee Chairman
s. 4th District Nixon - Agnew Campaign Committee Chairman
t. Minister

5. The following field trips were made:
a. Television Station (WXEX, Channel 8)
b. Fire Station
c. City Hall
d. Police Department
e. Traffic Court
f. Shopping Center
g. Radio Station, WSSV
h. Telephone Company (long distance and repair facilities)
i. Post Office
j. Airport, Fort Lee, Va.
k. Quartermaster Museum, Fort Lee, Va.
l. Byrd Airport, Richmond, Va.
m. Criminal Court (Investigation Team)
n. Virginia Employment Commission

6. The Program Counselors/Resource Teachers developed the following forms:
a. File Card for businesses and industries that have agreed to serve as resource persons and sites for field trips.
b. Principal's Resource Scheduled Form
c. Teacher's Resource Scheduled Form.
d. Materials and Equipment Inventory Sheet.

7. Placement Office Report

Placement Activities

I. Twenty-seven (27) industrial visits or contacts concerning placement of students or future reference for placement.

II. Fifty-one (51) interviews with students concerning future employment (February graduates, June graduates, part-time, and temporary.)

III. Twenty-four (24) referrals of students for employment interviews.

IV. Ten (10) students placed in employment (full time, part time, and temporary.)

School Activities

I. Briefing of counselors, administration, faculty, and

and February graduates as to function of Placement Office.

II. Development of forms and procedures for follow-up on graduating class of June, 1972.

III. Career Day for Medical Occupations. Representatives of Petersburg General Hospital held conferences with approximately 77 students interested in medical careers. (November 29, 1972)

IV. Planning and contacts for Armed Forces Career Day to be held January 9, 1973.

8. The program staff members attended Career Day on October 3, 1972 at Virginia State College, Petersburg, Virginia.

9. The project coordinator attended the National Coordinating Conference of State-level and Local-level Directors of Career Education Projects Funded Under Section 142 (c) of Part D and Section 131 (a) of Part C of Public Law - 90-576 held at Airlie House, Airlie, Virginia, December 17-19, 1972.

10. A meeting was held with Mrs. M. J. Pacella, Guidance Counselor, Colonial Heights, Junior High School, Colonial Heights, Virginia. Points discussed during the meeting concerned the concepts of career education and the organization, development, and progress of the Petersburg program. Career education pamphlets and brochures, including the career education literature developed in the Petersburg program were given to Mrs. Pacella to be used in a Career Guidance Conference.

11. A "Career Awareness Briefing Paper" was distributed to all professional staff personnel in the Petersburg Public Schools. The concept of career education and the objectives of the Petersburg Career Awareness Program were discussed in the "Briefing Paper". These "Briefing Papers" will be distributed periodically in order to continually inform the professional personnel of the progress of the program.

12. Plans for and the writing of the contract for the Third-Party Evaluators were completed and submitted to the State Department of Education for approval. Virginia State College, Petersburg, Virginia has consented to serve as the Third-Party Evaluators.

13. The editing and typing of the program's tentative curriculum guide was completed.

14. Brochures and pamphlets concerning information about careers were continually distributed to the teachers to be used as reference materials for the classroom resource centers and

for bulletin board displays.

15. Approximately one hundred fifty (150) brochures and pamphlets concerning information about careers were sent to the junior high school's library for a display center.

16. In connection with a field trip to WXEX-T.V. 8, a program was taped involving one of the fourth grade classes and Mr. L. J. Bennett, Program Counselor, in which an informal discussion concerning the Career Awareness Program was conducted with the students, the teacher, and the Program Counselor. This taped presentation was aired on WXEX-T.V. 8's Contact Program.

17. A meeting with all participating teachers was held October 26, 1972. This meeting was held for the interaction of ideas. The individual teachers commented on their progress, problems and experiences relative to their individual situations.

18. Weekly school meetings were continually held to discuss progress and problems. These meetings help to keep each teacher informed of the progress of the other teachers.

19. All participating teachers met November 15, 1972 to view a display of career education instructional materials and to express their opinions as to their value and use in the program.

20. The project site was visited by Mr. Carl E. Jorgensen, Coordinator Career Education Projects, State Department of Education, Richmond, Virginia.

January 1, 1973 - March 31, 1973

1. A conference with Dr. John Clagett, Chairman of Third Party Evaluation Team, Virginia-State College was held January 10, 1973.

2. Project visitation by the evaluation team was made on January 18, 1973.
   a. General meeting of staff members and members of the evaluation team to discuss overview and management objectives of the program.
   b. Visitation to project site.
   c. Summary meeting of staff members and evaluation team.

3. With the recommendations of the teachers, additional instructional materials, supplies, and equipment to assist in implementing the program were requisitioned. The materials, supplies, and equipment selected are designed to be used as reference materials, for motivational techniques, role playing, simulation activities, and "hands-on" activities.

4. Visitation by Mr. Neil Dunn, Coordinator Career Education, Radford Public Schools and the Guidance Counselor on January 15, 1973

5. The second Career Awareness Briefing Papers were disseminated to all instructional personnel in the school system outlining the overview of the program.

6. A staff meeting was held January 16, 1973 with the participating teachers to discuss progress and problems.

7. A progress report form was developed to be submitted by the teachers every two weeks to the Career Awareness Office.

8. Information was disseminated to graduate students conducting research of the Petersburg Career Awareness Program.

9. The Metropolitan Achievement Tests were administered to grades 1-7 and the Stanford Social Studies Test was administered to eighth grade students.

10. Complimentary pamphlets and brochures, depicting a variety of careers were requests from various companies. These materials were distributed to the program teachers and other interested teachers in the school system.

11. Mr. John Cook and Mr. Don Ayres, Assistant Supervisors, Guidance and Testing Services, State Department of Education visited the project site on February 1, 1973.

12. The program counselors presented a slide presentation of the Career Awareness Program to the Petersburg ESAA Advisory Council on February 8, 1973.

13. The program counselors attended a conference sponsored by Audio Fideltiy Corporation on February 21, 1973. The theme of the conference was Motivating for Career Success.

14. Mr. Larry Cornett, Coordinator Career Education, Big Stone Gap, Virginia visited the project site on February 14, 1973. Grades 6-8 were visited.

15. Mr. Bill Hahn, State Department of Welfare and Institutions, and Mr. Dennis Woodring, Resource Teacher, Occupational Orientation Program, Petersburg School System, visited the project site. Materials and slides were loaned for the preparation of a presentation to be given in a graduate class at Virginia State College.

16. The program staff members were invited by Mr. Robert Nida, Superivisor of Personnel, Allied Chemical Corporation, Fibers Division, Hopewell, Virginia on February 23, 1973 to have pictures taken with the three (3) resource persons who participated in the summer workshop. These pictures and a story will be printed in the Allied Chemical Newsletter.

17. "Between School Visits" were held weekly to familiarize all participating teachers with the career awareness activities conducted on all grade levels. Schedule of

meetings were as follows:

a. Walnut Hill School - February 8, 1973
b. Virginia Avenue School - February 15, 1973
c. A.P. Hill School - February 22, 1973
d. Peabody Junior High School - March 1, 1973

18. Mr. Garfield Jackson, Program Counselor, attended a two day Career Education conference on February 28, 1973 - March 1, 1973 in Washington, D. C. sponsored by the National Chamber of Commerce.

19. The Project Coordinator attended the Virginia Vocational Association Conference on March 9-10, 1973 in Williamsburg, Virginia. An oral and slide presentation of the Petersburg program was presented.

20. The Project Coordinator attended the Association for Supervision and Curriculum Development 28th Annual Conference held in Minneapolis, Minnesota, March 17-21, 1973. The following special Sessions were attended:

a. Career Education: Relevancy and Promise for the Individual
b. Career Education in a Comprehensive School District, Milford, Massachusetts.
c. Career Education in Peoria, Illinois
d. Career Development as Self Development: Beyond Career Education
e. Career Education Ideas That Work - ABLE Program, Northern Illinois University, DeKalb, Illinois.

21. Dr. VanDyke, Professor Industrial Arts Education, Virginia State College and the State Department of Education and twelve (12) students from Virginia State College visited the project site. Classroom activities were observed and a slide presentation of the program was presented by the Program Counselors.

22. Mr. Larry Cornett, Coordinator Career Education, and Dr. James Holmes, Big Stone Gap, Virginia visited the project site on March 28, 1973. Grades 1-5 were visited.

23. The Project Coordinator delivered two presentations on Career Awareness, K-6 at the Virginia Education Association Instructional Conference held in Richmond, Virginia on March 30, 1973.

24. The Blender, Hercules Incorporated Newsletter, Hopewell, Virginia printed a picture of the sixth grade students in the program. The students, teachers, and program counselor were taken on a tour of the chemical cotton area.

25. The following resource people visited the classrooms:

Resource Person

a. Chemist
b. Insurance Salesman
c. Optometrist
d. Soft Drink Co. Representative
e. Minister
f. Mrs. Jean Cobbs, Sociology, V.S.C.
g. Miss Betsy Rollins, Extension Agent, V.P.I.S.U.
h. Paul Harris, Agri. Agent, Prince George County
i. Mrs. Moffit, Supervisor of Nurses, Petersburg Health Department
j. John Harris, Representative, Pepsi Cola Bottling Company
k. R. Glover, Supervisor of Personnel, Hercules Incorporated
l. Paul Cash, Pollution Expert, Hercules Incorporated
m. Robert Maury, Student at Peabody High School
n. Major Jones, Military Science, V.S.C.
o. Amos F. Carter, Auto Mechanics Instructor I.B. Pittman Vocational Center, Petersburg, Virginia
p. Major Murphy, Military Science V.S.C.
q. Mrs. Letitia V. Manuel, Dietitian and Supervisor of Cafeterias, Petersburg School System
r. Mrs. Florence Jones, Dietitian, Holiday Inn, Washington Street & I-95

The following field trips were made:

Place

a. Petersburg Airport
b. Pet Shop (team investigation)
c. Post Office
d. Bank
e. Knitting Mill (team investigation)
f. Post Office
g. State Capitol, Richmond
h. Fort Lee Quartermaster Museum
i. Norfolk Naval Station
j. U.S. Capitol, Washington, D. C.
k. J.F. Kennedy Center for the Performing Arts
l. Frederick Douglas' Home
m. Bakery
n. Grocery Store
o. Brown and Williamson Tobacco Co. to interview personnel manager (team investigation)
p. Brown and Williamson Tobacco Co. to interview personnel manager and to tour plant (team investigation)

q. WXEX-T.V. Station
r. Brown and Williamson Tobacco Company
s. National Battlefield Park Museum, Petersburg, Virginia
t. Hercules, Inc.
u. Appomattox River Water Authority

26. Placement Office Report

Placement Activities

I. Forty-one (41) industrial visits or contacts concerning placement of students or furture reference for placement.

II. Ninety-nine (99) interviews with students concerning future employment (February graduates, June graduates, part-time, and temporary.)

III. Thirty-five (35) referrals of students for employment interviews.

IV. Twenty-two (22) students placed in employment (full time, part-time, and temporary).

School Activities

I. Follow-up study of June, 1972 graduates. As of March 28, 1973, approximately 60% of graduates have responded.

II. Visit by representatives of the Petersburg Fire Department to Senior English classes. Presentations were made concerning career opportunities with the fire department.

III. Assembly for students interested in careers with the Petersburg Fire Department. Approximately sixty (60) seniors recruited from visits to English classes attended.

IV. Armed Forces Career Day. Representatives of the Army, Air Force, Marines, and Navy, and Coast Guard met with one-hundred-fifty (150) seniors concerning careers in the Armed Forces.

V. Visit to business classes by Special Agent of the Federal Bureau of Investigation. He discussed office career opportunities with the Bureau.

April 1, 1973 - June 30, 1973

1. Plans were made for further expansion of the Career Awareness Program in grades 1-7 for the 1973-74 school year. The expansion of the program also involves the addition of another elementary school in the project site.

2. At the junior high school level, more definite plans were made for further expansion of the Career Education Program on the eighth grade level and the inclusion of the ninth grade for the 1973-74 school year.

3. Several conferences were held with the junior high school principal to discuss plans for expansion of the program and to identify potential eighth and ninth grade teachers to participate in the program.

4. Several conferences were held with the elementary school principals to identify potential teachers to be involved in the expansion of the program in grades 1-7 for the 1973-74 school year.

5. Mr. Lewis Romano, Virginia Commonwealth University Graduate student, visited the project site in order to obtain additional information for the writing of a thesis.

6. A meeting was held at the junior high school to orientate the prospective career education teachers, guidance counselors, and other interested persons to the concept of career education.

The agenda of the meeting was as followed:

a. Film: Career Education
b. Overview of the Petersburg program and the plans for expansion of the program as outlined in the proposal for the 1973-74 school year.
c. Questions and answer period

7. The project coordinator participated in a conference sponsored by Virginia Polytechnic Institute and State University, Blacksburg, Virginia held May 11-12, 1973. The theme of the conference was New Dimensions in Career Education. An oral and slide presentation of the Petersburg Career Awareness Program was presented at two separate sessions.

8. Federal auditors from the General Accounting Office, Washington, D. C. visited the project site on May 23-24, 1973.

9. The Third-Party Evaluators visited the project site May 31, 1973.

10. A news release and picture of a resource person (a baker) in the first grade classroom was printed in the Petersburg Progress-Index newspaper on May 31, 1973.

11. A workshop for the 1972-73 participating teachers in the program and for the additional teachers to the program for the 1973-74 school year was held June 11-15, 1973. The objectives of the workshop were:

a. To give the in-coming teachers a brief orientation of the program and an opportunity for them to plan with their team members, the techniques and strategies to be used for next year's program.

b. To evaluate the year's progress and to revise the tentative curriculum guide. The curriculum guide will be edited and sent to the State Department of Education for dissemination.

12. Plans were made for a four-week in-service workshop (July 1973) for the eighth and ninth grade teachers that will be participating in the 1973-74 school year program. A tentative curriculum guide will be developed in which career education activities will be incorporated into the existing mathematics, science, and English curriculums.

13. An interview with a reporter from the Petersburg Progress-Index newspaper was held concerning the overview of the program. The feature article was published in the July 21, 1973 edition.

14. The following resource people visited the classrooms.

a. Agricultural Extension Agent
b. Nurse
c. Student Nurse
d. Florist
e. City Building Inspector
f. City Director of Personnel
g. President, Society for the Prevention of Cruelty to Animals
h. Manager, Brown and Williamson Tobacco Company
i. Cosmetologist
j. Truck Driver
k. City Councilman
l. Dentist
m. Trash Collector
n. Hospital Public Relations Expert
o. Telephone Installer
p. Policeman
q. Baker
r. Foreign Army Officers
s. Football Coach

15. The following field trips were made.

a. Culinary Arts Exhibition, Richmond, Virginia
b. Museum of History and Technology, Washington, D. C.
c. Unites States Bureau of Engraving and Printing, Washington D. C.

d. United States Commerce Department, Washington, D. C.
e. Science Fair, Peabody Junior High School
f. United States Capitol Building, Washington, D. C.
g. MacArthur Memorial Museum, Norfolk, Virginia
h. Botanical Gardens, Norfolk, Virginia
i. Newport News Harbor Cruise, Newport News, Virginia
j. Fort Lee Army Installation
k. Wax Museum
l. Arlington National Cemetery
m. Animal Hospital
n. Pet Shop
o. Brown and Williamson Tobacco Company
p. Beauty School
q. Barber Shop
r. Post Office
s. Department Store
t. City Hall
u. Police Station
v. Telephone Company
w. United States Army Recruiting Office
x. Printing Company
y. Battlefield National Park
z. Bank
1. Grocery Store
2. Virginia State College, Art Department
3. Hustings Court
4. Motel
5. Public Library

16. Placement Office Report

I. <u>Placement Activities</u>

A. Ninety-eight (98) students referred for employment interviews

B. Fifty-five (55) placed in employment.

II. Total Placement Activities for 1972-73 school year

A. One-hundred fifty-seven (157) students referred for employment interviews.

B. Eighty-seven (87) placed in employment

III. Administration of GATBY at Colonial Heights High School, April 3-4; Petersburg High School, April 10

IV. Program for Lions Club, May 9

V. Career Day, May 24 - Visit by representative of C & P Telephone Company

VI. Program for Business classes, May 25

VII. Career Interest Survey of Class of 1974.

VIII. Follow-up study of the 1972 graduating class of Petersburg High School.

APPENDIX E

CAREER EXPLORATION SCALE

CONCERNS ABOUT CAREER EDUCATION	AGREE	DISAGREE
1. Attitudes and values are more affected by early life experiences than by school experiences.		
2. Interests expressed by elementary school children are of minor importance when designing curriculum.		
3. The elementary school is not equipped to develop decision-making abilities.		
4. Interests can be explored before vocational maturity is reached.		
5. Career exploration should be given little emphasis until the child reaches adolescence.		
6. Exposure to many career alternatives serves only to confuse the elementary school child.		
7. Positive attitudes toward work do exist, but are often subsequently destroyed, in our children as early as the second grade.		
8. The skill training offered to a student should be based primarily on the results of aptitude tests administered to him.		
9. Teachers of vocational subjects tend to isolate, as well as be isolated, by teachers unversed in vocational education.		
10. The majority of school parents and the business community are eager to become involved in the educational process.		
11. The majority of school personnel will individually admit, but collectively deny, the irrelevance of much of today's curriculum.		
12. Vocational training should be postponed until after high school.		

	AGREE	DISAGREE
13. Career development is a process where the pupil is exposed to the work components of his career choice.		
14. Children can be introduced in the elementary grades to ideas about working for a living and to realities of wage earning.		
15. The regular classroom teacher is unable to provide each pupil with occupational and career information while teaching subject matter.		
16. Occupational education is O.K. at the secondary level, but the elementary grades curriculum is already overloaded.		
17. The majority of teachers have had little or no work experience outside of teaching. Without that background, a meaningful program in career education would be difficult.		
18. Occupational development, as a curricular objective, should encourage student awareness of career opportunities in every discipline they study.		
19. The push toward occupational development is not realistic at this time.		
20. Before being oriented to this project, as an educator, I had no idea how to start to implement a program of career development.		
21. A successful program of occupational development would be possible if: (a) Attractive, multi-media learning packages were developed and made available. (b) A massive teacher training and in-service program were conducted.		
22. Occupational development should be a low priority concern in K-12 curriculum development.		
23. Occupational development is one of those areas that can be ignored in public schools without any serious short-term effects.		
24. Occupational development should be a long-term educational process in helping each child realize his aptitudes, interests, and temperament in selecting and preparing for the world of work.		
25. Let's not kid ourselves-occupational development isn't for all kids.		

ORAL TEST

APPENDIX F

CAREER AWARENESS
PRE/POST TEST
KINDERGARTEN

	YES	NO
1. Once you choose a job, do you think you can ever choose another one?		
2. Are you going to think about choosing a job before you finish school?		
3. Do you think work is good because it helps you buy the things you want?		
4. Do you think that there is only one job for one person?		
5. Do you know what work is like?		
6. Do you think it's important for a person to enjoy his work?		

7. What are your parents' jobs?

ORAL TEST

CAREER AWARENESS
PRE/POST TEST
FIRST GRADE

	YES	NO
1. Once you choose a job, do you think you can ever choose another one later on?		
2. Are you going to think about choosing a job before you finish school?		
3. Do you think work is good because it helps you buy the things you want?		
4. Do you think that there is only one job for one person?		
5. Do you know what work is like?		
6. Do you think it's important for a person to enjoy his work?		

7. What are your parents' jobs?

ORAL TEST

CAREER AWARENESS
PRE/POST TEST
SECOND GRADE

		YES	NO
1.	When you choose a job, do you think you can ever choose another one later on?		
2.	Are you going to think about choosing a job before you finish school?		
3.	Do you think work is good because it helps you buy the things you want?		
4.	Do you know much about different jobs?		
5.	Do you think there is only one job for each person?		
6.	Do you know what work is like?		
7.	Do you think it's important for a person to enjoy his work?		

8. What are your parents' jobs? _____

ORAL TEST

CAREER AWARENESS
PRE/POST TEST
THIRD GRADE

	YES	NO
1. When you choose a job, do you think you can ever choose another one later on?		
2. Are you going to think about choosing a job before you finish school?		
3. Do you think work is good because it helps you buy the things you want?		
4. Do you know much about different jobs?		
5. Do you think there is only one job for each person?		
6. Do you know what work is like?		
7. Do you think you will find a job that you will like?		
8. Do you think it's important for a person to enjoy his work?		
9. Do you think you will probably get a job anyway, so you don't need to plan for it?		

10. What are your parents' jobs? _____

WRITTEN TEST

CAREER AWARENESS
PRE/POST TEST
FOURTH GRADE

		TRUE	FALSE
1.	I guess everybody must work, but I certainly don't want to.		
2.	I'm not going to think about choosing a job until I'm out of school.		
3.	I don't know much about different jobs.		
4.	There is only one job for a person.		
5.	I don't know what work is like.		
6.	I don't think I'll find a job I'll like.		
7	I think it's important for a person to enjoy his work.		
8.	I'll probably get a job anyway, so I don't need to plan for it.		

9. What job would you like to have when you finish school?

CAREER AWARENESS
PRE/POST TEST
FIFTH GRADE

WRITTEN TEST

		TRUE	FALSE
1.	[illegible]s everybody must work, but I certainly don't want to.		
2.	I don't know what courses I should take later in high school.		
3.	By the time I am 15 I hope to have my mind pretty well made up about my job.		
4.	I seldom think about the job I want to enter.		
5.	Going to school is preparing me for my job.		
6.	I don't know much about different jobs.		
7.	You get a job mostly by chance.		
8.	I don't think I'll find a job I'll like.		
9.	I think it's important for a person to enjoy his work.		
10.	I'll probably get a job anyway, so I don't need to plan for it.		
11.	You can find out about jobs in Radford by looking in the newspaper.		

12. What job would you like to have when you finish school? _____

13. Name 3 jobs in Radford you could get without having a college education. _____

_____

_____

WRITTEN TEST

CAREER AWARENESS
PRE/POST TEST
SIXTH GRADE

		TRUE	FALSE
1.	I guess everybody must work, but I certainly don't want to.		
2.	I don't know what courses I should take later in high school.		
3.	By the time I am 15 I hope to have my mind pretty well made up about my job.		
4.	I seldom think about the job I want to enter.		
5.	Going to school is preparing me for my job.		
6.	I don't know much about different jobs.		
7.	You get a job mostly by chance.		
8.	I'll make up my own mind about the job I'll take.		
9.	I don't think I'll find a job I'll like.		
10.	I think it's important for a person to enjoy his work.		
11.	I'll probably get a job anyway, so I don't need to plan for it.		
12.	I will have very little choice about the job I get.		
13.	You can find out about jobs in Radford by looking in the newspaper.		
14.	I know where to find out about different jobs.		

15. What job would you like to have when you finish school? _____

16. Name 3 jobs in Radford you could get without having a college education. _____

_____

_____

WRITTEN TEST

CAREER AWARENESS
PRE/POST TEST
SEVENTH GRADE

		TRUE	FALSE
1.	Guess everybody must work, but I certainly don't want to.		
2.	I don't know what courses I should take later in high school.		
3.	By the time I am 15 I hope to have my mind pretty well made up about my job.		
4.	I seldom think about the job I want to enter.		
5.	Going to school is preparing me for my job.		
6.	I don't know much about different jobs.		
7.	You get a job mostly by chance.		
8.	I'll make up my own mind about the job I'll take.		
9.	I don't think I'll find a job I'll like.		
10.	I think it's important for a person to enjoy his work.		
11.	I'll probably get a job anyway, so I don't need to plan for it.		
12.	I will have very little choice about the job I get.		
13.	You can find out about jobs in Radford by looking in the newspaper.		
14.	I know where to find out about different jobs.		

15. What job would you like to have when you finish school? _____

16. Name 3 jobs in Radford you could have without having a college education. _____

_____

_____

APPENDIX G

A tally of sixteen elementary teachers response to an evaluation sheet prepared by the Career Awareness Coordinator.

Objectives

1. What do you feel are the strongest aspects relative to your objectives?

   a. Building an appreciation for workers in the community 4

   b. Getting community interested in the program 1

   c. Subject matter become more interesting and meaningful 7

   d. No comment 4

   16

2. What aspects relative to your objectives are in need of improvement?

   a. Arrange for field trips to be taken free of charge in order that all pupils enrolled in the project may have these experiences. 4

   b. Provide more experiences which will enhance the development of moral values necessary for a successful career. 2

   c. The curriculum should be integrated with total school curriculum to avoid parental and pupil confusion. 7

   d. No comment 3

   16

3. Was your program and instruction planned and directed toward achieving your objectives?

Yes	No	Total
16	0	16

4. Did you make periodic evaluations of your program in terms of objectives?

Yes	No	Total
11	5	16

5. Were your grade level objectives compatable to any of the program goals?

Yes	No	No Comment	Total
15	0	1	16

Teacher

1. Do you agree with the philosophy that career development should be integrated into total local school curriculum?

Yes	No	Total
16	0	16

2. Do you agree that the program should be student centered, providing some "hands-on" experience-centered activities?

Yes	No	Total
16	0	16

3. Do you feel that the in-service workshop was of justifiable benefit to you?

Yes	No	No Comment	Did not attend	Total
12	0	2	2	16

4. What do you feel to be your strengths as a teacher in this program?

   a. My ability to change attitudes of individual children about learning, themselves and others 3

   b. My williness to accept the challenge, work and study hard-listen to the children and

others in planning and evaluating. My ability to keep an open mind, always focusing on the objectives of the program 7

c. My background of experiences and training 4

d. No comment 2

16

5. What aspects of your function as a teacher in the Career Awareness Program are in need of improvement?

a. Was not able to execute my function to my satisfaction because of: insufficient Career Awareness materials for Learning Centers, lack of adequate equipment space. There is a great need for the services of a teachers-aid 4

b. Needed more training for the project 5

c. I need to become more innovative 2

d. I could have done better had I not shared my classroom with teachers in other areas 2

e. Need to make the adjustment to the new program 2

f. No comment 1

16

Curriculum and Instruction

1. Did your segment of the curriculum guide provide for a sequential development of awareness, attitude, skills and interests?

Yes	No	No Comment	Total
13	0	3	16

2. Did the Career Awareness learning activities meet your program objectives as stated in the Curriculum Guide?

Yes	No	Partically	No Comment	Total
12	0	1	3	16

3. Do you honestly feel that your students are more aware of the world of work having been a part of the Career Awareness Program?

Yes	No	Total
16	0	16

4. Did you make provisions in your instruction for helping students develop decision-making skills?

Yes	No	No Comment	Total
13	2	1	16

5. Did you find that the use of resource people was a definite asset to the program?

Yes	No	Total
16	0	16

6. Do you feel that the field trips your class(es) took enhances your awareness of the world of work?

Yes	No	Total
16	0	16

7. Do you feel that your students are more aware of themselves; their abilities, interest, physical characteristics, and emotional characteristics?

Yes	No	Total
16	0	16

8. Did you have adequate supplies, materials, and equipment to do what you set out to do?

Yes	No	No Comment	Total
10	5	1	16

What do you feel are the strongest aspects relative to your section of the curriculum guide?

a. A great help in selecting activities, materials, and resources 9

b. Aided in the integrating the Career Awareness goals into the total curriculum 5

c. Its emphasis on Career Awareness 2

16

10. What aspects relative to your section are in need of improvement?

a. More musical and mathematical activities More community involvement 4

b. More integration of social studies and Career Awareness 6

c. More evaluation techniques 2

d. More materials will help 1

e. No Comment 3

16

Career Awareness and Staff Resource Center

1. Were the services provided you by the resource teachers adequate?

Yes	No	Total
15	1	16

2. Would you have preferred additional services from resource teachers?

Yes	No	Total
11	5	16

3. Do you feel that the coordinator of the program was effective as she should have been?

Yes	No	Total
15	1	16

4. How helpful was the resource center in providing commerical materials such as films, vediotapes, slides, tapes, texts, and other printed materials?

a. Very helpful, needs expansion in films and filmstrips	13
b. No comment	3
	16

5. What do you feel are the strengths of the Career Awareness staff and resource unit?

a. Highly competent staff. Career Awareness oriented, enthusiastic, always available and helpful	12
b. Easy to communicate with and most understanding	2
c. No comment	2
	16

6. What aspects are in need of improvement?

a. None	2
b. Grade levels better coordinated	1
c. Larger staff, thus smaller classes	1
d. More funds allocated	2
e. Better system of communication	1
f. Free transportation for pupils taking trips	1
g. No comment	8
	16

APPENDIX H

A comparison of reading and mathematics achievement test scores for selected grades in Kuhn Barnett School and Radford City Schools in grade equivalents, based upon the Metropolitan Achievement Tests.

READING	FIRST GRADE, 1971-72	SECOND GRADE, 1972-73	DIFF.
Kuhn Barnett	2.11	2.93	.82
Radford City Schools	2.38	3.33	.95
Difference	.27	.40	-.13*

MATHEMATICS	FIRST GRADE, 1971-72	SECOND GRADE, 1972-73	DIFF.
Kuhn Barnett	2.01	2.78	.77
Radford City Schools	2.36	3.03	.67
Difference	.35	.25	+.10*

READING	FOURTH GRADE, 1971-72	FIFTH GRADE, 1972-73	DIFF.
Kuhn Barnett	5.19	6.08	.89
Radford City Schools	5.56	6.30	.84
Difference	.37	.22	+.15*

MATHEMATICS	FOURTH GRADE, 1971-72	FIFTH GRADE, 1972-73	DIFF.
Kuhn Barnett	4.78	5.53	.75
Radford City Schools	5.14	5.84	.70
Difference	.36	.31	+.05*

*Plus and minus signs were used to indicate whether the differences favored Kuhn Barnett or Radford City Schools. A plus indicates a difference in favor of Kuhn Barnett; a minus indicates a difference in favor of Radford City Schools.

APPENDIX I

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